

# Dresser ROOTS 10C25 DI-T Meter with Digital Instrument Index

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# Small Meter Big Impact

The Dresser ROOTS 10C25 DI-T rotary meter delivers advanced features in a small package. Sized for applications typically reserved for large diaphragm meters, the 10C25 DI-T allows for ease of installation and clean aesthetics while also providing the temperature corrected measurement capabilities typically reserved for large sized rotary meters.

## Dresser Digital Instrument with Temperature Compensation (DI-T) Indexes

Based on the legacy of Dresser ROOTS meter products, the innovative 10C25 leverages an oil free meter body with the precision of the Dresser (DI-T) index. The temperature compensated index is simple to configure, allows for multiple pulse outputs, and provides 150+ days of hourly data stored in non-volatile memory.

## Meter Accuracy

Dresser ROOTS meters are synonymous with reliable long-term accuracy. The Dresser 10C25 meter continues this legacy with a proven oil free design based on a successful track record of nearly two decades. With a start rate of only 0.35acfh, the 10C25 rapidly climbs to an accuracy of 99% at only 10acfh (1% rangeability 95:1) which makes this meter an excellent tool for accurately capturing gas loads ranging from pilot flows to full capacity.

## Quick Temperature Compensated Proving

Accuracy testing is quick and simple with to the Dresser DI-T index. Save time and money with a proving time of less than 5 minutes on the temperature compensated (DI-T) index, no special software or computer programs are required for testing. An inexpensive fixture to hold the meter is also available for ease of testing on common cabinet type sonic nozzle test systems.



## Meter Set Flexibility

Capable of bidirectional flow, the Dresser 10C25 allows for maximum installation versatility and material saving meter set designs. Coupled with the DI-T index, capable of horizontal and vertical mounting configurations, the 10C25 can adapt to small and compact installation with maximum flexibility.





## Simple AMR Mounting

Mounting of Automated Meter Reading (AMR) devices is made simple with a cable concealing base and a quick-mount bracket. The base conceals and protects the cable connection while also allowing for the slip-on installation of the AMR device. As an option, tamper indicating devices can be installed on the mounting platform for additional data security. The AMR mounting platform is compatible with common AMR system provider endpoints.

## Small size with Big Savings

At 10 pounds, the 10C25 not only reduces the potential for weight related injuries during material handling and installation, the impact is felt in the warehouse as well. With a box size of only 0.77 cubic feet (including a mounted AMR device), storage space is reduced by 70% as compared to a typical 1000 class diaphragm meter. Finally, the 80% reduction in weight in conjunction with the 70% reduction in meter size directly translates to a notable reduction in transportation costs as well.

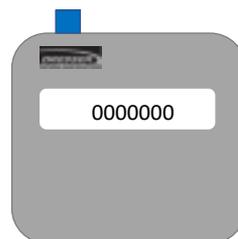
## Common Software Platform

Reducing training and IT costs, the Dresser MeterWare combines several measurement indexes into one, easy to use interface which automatically recognizes and displays the connected product. Along with the DI-T index, the software is also used for the Dresser D800 and D1000 meters and the Dresser ES3 (Electronic compensating index with mechanical back-up) and the Dresser ETC (Electronic Temperature Compensator).



## Multiple Volume Pulse Output Options

A variety of pulse output options are available to meet application needs. The patent pending instrument housing was developed specifically to protect the system electronics from the elements. Both the housing and connectors are designed to meet either IP68 or IP67 requirements for dust and moisture ingress protection, depending on the connector selection. The most common pulse output configuration, used primary for AMR endpoint installation, is rated to IP68 (suitable for continuous immersion in water).



# Specifications

| CRITERIA   | SPECIFICATIONS  |
|--|---|
| Capacity   | 1000 CFH  |
| Maximum Allowable Operating Pressure (MAOP)              | 25 psig   |
| Net Weight   | 9.5 lb  |
| Connections  | 30 LT/45 LT/#3, #4 Sprague, 1 1/2" FNPT   |
| Operating Temperature Range                              | -40°F to 140°F (40°C to 60°C)   |
| <b>TEMPERATURE MEASUREMENT SYSTEM (ELECTRONIC INDEX)</b> |   |
| Type   | Extremely Stable Class A, PT 1000 RTD   |
| Total Ambient Temperature Effect                         | Less than 0.1°F (0.05°C) over entire temperature range  |
| Pressure Compensation                                    | Programmable Fixed Factor   |
| Computational Accuracy                                   | +/- 0.25% of compensated volume reading   |
| Data Logged  | 150 days of hourly logs   |
| <b>POWER</b>   |   |
| Battery Pack   | Lithium Thionyl Chloride Pack with protective circuitry   |
| Nominal Battery Life                                     | 20 years  |
| Battery Access   | Field replaceable   |
| Information Retention                                    | Flash memory for permanent information retention without power  |
| <b>COMMUNICATION</b>                                     |   |
| Pulse Type   | Two (2) user-selectable Form A Outputs  |
| Dedicated Fault Output                                   | Form B (500 ms pulse duration)  |
| Output Representation                                    | <ul style="list-style-type: none"> <li>• Compensated</li> <li>• Non-compensated</li> <li>• Fault</li> <li>• Disabled</li> </ul>   |
| Maximum Loop Voltage                                     | 8.2V  |
| <b>ALARMS</b>  |   |
| Alarm Notifications                                      | <ul style="list-style-type: none"> <li>• High/low temperature</li> <li>• High flow</li> <li>• Low battery</li> </ul>  |
| <b>REGULATORY STANDARDS</b>                              |   |
| Regulatory Standards                                     | <ul style="list-style-type: none"> <li>• ANSI B109.3 Rotary Meter Standard</li> <li>• EN 61000-6.1, 2, 3, 4 electromagnetic compatibility</li> <li>• UN 38.3 Lithium Battery Testing</li> <li>• 060247-001 certificate of compliance</li> </ul> |
| Safety Approvals   | <ul style="list-style-type: none"> <li>• CSA C22.2 No. 213 Class 1 Div 1 Group A, B, C, D</li> <li>• T3C</li> </ul>   |
| Dust/Moisture Ingress Protection                         | IP66 to IP68 dependent upon connector configurations  |
| <b>TEMPERATURE READING ACCURACY</b>                      |   |
| -40°F to 140°F: +/- 0.9°F (-40°C to 60°C: +/- 0.5°C)     |   |

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